

**SOME NORTH AMERICAN DIPTERA FROM THE
SOUTHWEST.**

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PAPER II.

TRYPETIDÆ.

(Plate I.)

As mentioned in Paper I (published in the Trans. Am. Ent. Soc., XXXII, Sept., 1906), this material, with a few exceptions, was collected by J. A. G. Rehn and H. L. Viereck, chiefly in New Mexico, during the summer of 1902; also a few species collected in Mexico by J. F. McClendon in the summer of 1903.

I have figured the wings of several described species, because they have never been given, and I think every description, especially of the *Tephritis* group, to be of value, should have a good figure of the wing. When this group is monographed, no doubt there will be many synonyms, at least varieties, established; many on account of the reliance placed upon the description of the wings which have not been figured.

The genera *Ensina*, *Tephritis* and *Euaresta* are very poorly defined on account of their transmutation, and the only satisfactory way to treat them is to place them under *Tephritis*, making the former and latter subgenera. In this paper I have not considered the genus *Ensina*, excepting *E. humilis* Lw., but have placed under *Tephritis* all species having the *Tephritis* wing design. I separate *Euaresta* according to Coquillett, but it is not very satisfactory; even Loew in his Monograph states that he is doubtful as to the validity of this genus.

***Strauzia longipennis* Wied., var. Pl. I, fig. 1.**

One male, East Las Vegas, N. Mex. Length 6 mm.

Entirely yellow, excepting black spots as follows: one including the ocellar tubercle, two on the anterior dorsal margin of thorax separated by a narrow yellow line, one on each lateral angle of the thorax, two on the brown metanotum next to the abdomen. The outer verticals and the two upper frontal pair of bristles incrassate

and truncate, but not enlarged at tip; the two lower pair much stronger than all the others, of which the upper pair is one and one-half again longer than the next lower. All bristles and hairs black. The wing as figured.

Strauzia is the original name of this genus, which Loew called *Straussia*, as being a more correct form. Whether good or poor form, Desvoidy's name *Strauzia* has the priority, and I therefore follow Coquillett in re-establishing the original name.

***Strauzia diffusia* Snow.**

One of each sex. East Las Vegas, N. Mex.

***Spilographa obfuscata* v. d. W.**

One male, Guadalajara, Mex. (McClendon).

Agrees well with the description, excepting that the antenna reaches to the lower third of face. The thorax is black, but appears cinereous from the pollinose coating. The abdomen is grayish-pollinose on the middle of the dorsum and along the posterior margins of the segments, but there is a non-pollinose black spot in the middle of each segment, forming a median dorsal stripe. Knobs of halteres black. The band passing over the small cross-vein is the widest band on the wing, but does not meet the next band at the posterior margin; and the latter band, which passes over the posterior cross vein, is represented only by spots at the second, third, fourth and fifth veins. The small cross-vein is before the middle of discal cell. The basal band is not distinct below the first basal cell, except as a spot at the acute apex of anal cell.

***Plagiotoma obliqua* Say.**

Three males, Alamogordo, N. Mex.; one male, Guadalajara, Mex.

Only one spot on the pleura, and that at the base of the halteres. The posterior part of the thoracic dorsum shining, in contrast with the yellow dusted anterior portion. Apex of scutellum with a brown spot. Length 4 mm.

The male from Mexico has the thoracic dorsum entirely yellow pollinose. Scutellum without apical spot. Pleura blackened about the base of halteres, and the hind coxæ extending to the metanotum. Abdomen with two black spots on the lateral margins of fourth segment. Length $4\frac{1}{2}$ mm.

This latter seems to approach Loew's Brazilian variety referred to in his Monograph, page 251.

***Neaspilota alba* Lw.**

Seven males and one female, Alamogordo, N. Mexico.

These specimens are so well marked, I think it will not be out of place to note such here.

Generally sulphur-yellow; dorsum of the thorax, in part, meta-notum, excepting the sides, a large triangular spot on the lower part of the sternopleura and a smaller spot on the hypopleura above the hind coxæ, black, more or less obscured by whitish pollen. The black area of the thoracic dorsum is limited mostly to the anterior part, and a narrow extension each side of a rectangular area which includes the two pair of dorso centrals. Sometimes this black area is contracted, leaving the lateral margins and the greater part of the posterior half of the dorsum, yellow. The bases of the second and following abdominal segments brown. The antennæ, especially the tips, the tip of the proboscis, the extreme bases of the wings, the halteres and the legs, rufous or reddish-yellow. Stigma entirely or only at its base brownish.

***Acuira insecta* Lw.**

One male, Guadalajara, Mex.

***Entreta sparsa* Wied.**

One male, Cloudercroft, N. Mex.

***Eusina humilis* Lw.**

One female, Highrolls, N. Mex.

***Tephritis elathrata* Lw.**

One male, Guadalajara, Mexico.

The antennæ scarcely reaching the oral margin. The apical bristles of scutellum minute; the lateral ones very long. The abdominal spots brown. The wing reticulation very distinct, even below the fifth vein.

***Tephritis finalis* Lw.**

One male, Guadalajara, Mex.

Head and palpi light yellow; antennæ more rufous; thoracic bristles brownish; humeri and a band to base of wings yellow; scutellum entirely yellow, the bristles brown, the lateral pair are the longest on the insect, the apical pair decussating; the abdomen more shining black; the first segment and posterior margins of all yellow;

the fourth segment as long as the second and third together, the yellow of its posterior margin extending in form of a median wedge nearly to its base, the genitalia yellow; legs pale yellow; wings typical, but the spots smaller, and more numerous in the first posterior cell, one being at its extreme apex.

Tephritis murina Doan.

Numerous specimens of both sexes, Cloudercroft, Beulah, and Las Vegas, New Mexico.

As Mr. Doan remarks, this species resembles *T. albiceps* Lw. in the wing design, but the latter is readily distinguished by the formation of the marginal drops at the apex of the wing, and the next inner row, which are concentric with them; also the interspersing of minute drops among the larger discal ones. The wing also is narrower in proportion than in *albiceps*.

I have before me a few specimens of *murina* showing a tendency of the apical drops to arrange themselves concentrically as those of *albiceps*. The absence of the black abdominal markings, except with the females is not constant, but where present are rather faint.

Dr. Coquillett has kindly confirmed the determination of my specimens.

Tephritis dupla sp. nov., Pl. I, fig. 2.

Male.—Front rufous, darker along the orbits and at vertex; narrow anteriorly, nearly one-half as wide as at the vertex; bristles black. Face yellow, whitish along the orbits. Palpi and proboscis yellow; labella genticulate. Antennæ rufous, three-quarters the length of face, stout; third joint rounded at apex, cylindrical. Occiput, except the posterior orbits and behind the cheeks, black.

Thorax and scutellum black, with the usual bristles and whitish hairs, grayish-pollinose; the former with three dorsal and two lateral brownish lines; the latter brownish at apex, with four bristles.

The abdomen more shining, black. All femora black; fore and middle tibiæ, extremities of hind tibiæ, and all tarsi rufous. The stigma of wing and the adjacent part of marginal cell infusate; no spot in stigma; small cross-vein infusate; only two spots in the marginal cell; third vein bare. Length 2.5 mm.

Two males, Beulah, N. Mex. Cotype in Acad. Nat. Nat. Sci. Phila., and Univ. Kans. collection.

The two large spots in the marginal cell, with the uniform reticulation of remainder of the wing is very characteristic.

Tephritis umbrata sp. nov., Plate I, fig. 3.

Male.—Front yellow, orbits narrowly white; bristles black. Face and cheeks whitish, cheeks with a long bristle opposite the lower angle of eyes. Oral mar-

gin with long white bristles, longest towards the occiput. Occiput blackish, pollinose above; all its bristles white. Antennæ light yellow, reaching to within one-half the length of second joint from the oral margin; third joint rounded at apex; arista brown. Palpi and proboscis yellow.

Thorax black, whitish-pollinose, bristles black, sparsely clothed with short white bristle-like hairs, longest on the pleura; dorsum with three faint brownish stripes, its bristles very long. Scutellum like-colored, with the thoracic stripes extending to its apical margin; four bristles, the lateral pair very long reaching as far as the stigma of wing.

Abdomen like-colored, with whitish hairs; two brown spots on the dorsum of each segment; bristles on the posterior margin of fourth segment black. Halteres reddish-yellow. Squamulae whitish.

Legs in general reddish-yellow, but all coxæ, the upper surface of the basal half of fore femora, middle third of middle femora and the basal two-thirds of hind femora blackish; all bristles brownish, the longest on the fore femora.

Wing with the stigma, adjacent portion of marginal and submarginal cells, small cross-vein, and posterior cross-vein, infusate; a spot in the stigma, three in the marginal cell, and the extreme bases of the marginal and submarginal cells, hyaline; spots in the first posterior cell small, except the large conglomeration in the apical portion. Length 3 mm.

One male, Guadalajara, Mexico. Type in Acad. Nat. Sci. Phila. collection.

Allied to *T. inornata* Coq., but the spots on the abdomen (which I do not think is a constant character), the partly blackish legs and the more numerous spots in the submarginal and first posterior cells will distinguish this species.

Tephritis corpulenta sp. nov., Pl. I, fig 4.

Male.—Head yellow, except the black upper portion of occiput, and the whitish face and cheeks. The frontal, two vertical, and two ocellar bristles, black, all others and hairs white. Antennæ reaching to within the length of second joint from the oral margin; arista brown.

Thorax cinereous, bristles black, hairs white. Humeri and a line to base of wing yellowish. Metanotum black. Scutellum apex narrowly yellowish, with four bristles. Halteres light yellow.

Abdomen cinereous, as broad as long, and broader than the thorax; hairs white; bristles on the posterior margin of fourth segment black.

Legs rufous, except the upper side of fore femora, the basal third of middle, and all of hind femora, except the knee, black. Wing brown, as figured. Length 3 mm.

One male, Cloudercroft, N. Mex. Type in Acad. Nat. Sci. Phila. collection.

Approaching *Ensina despecta* v. d. W., but the broad band extending from the stigma to the posterior cross-vein is more distinct, only two large spots in the submarginal cell; the large spot in the

discal cell opposite the posterior cross vein much smaller; one less spot in the second basal cell. The abdomen is noticeably rounded, not pointed at apex.

Tephritis fibulata v. d. W.

One female, Las Vegas, N. Mex.

This species is figured in the *Biologia, Diptera*, Vol. II, and the specimen before me agrees well with it, but the small cross-vein is clouded; the extreme apical spot of the submarginal cell wanting; two small spots in the stigmatic cloud of the submarginal cell; the two small spots in the discal cell near the posterior cross-veins wanting, but the large spot before them is nearly divided into two. The ovipositor is nearly as long as the abdomen. The markings of the thorax and abdomen distinct.

Tephritis inornata Coq., Pl. I, fig. 5.

One male, Beulah, N. Mex.

The yellow legs. The triangular group of three spots in the apical portion of the submarginal cell, though they sometimes coalesce into one; the quadriangular group of four spots in the basal portion of the first posterior cell, though they also sometimes coalesce into one large spot or two elongated spots; and the five or six smaller spots in the apical portion of the first posterior cell are characteristic of this species, in addition to the typical description.

Tephritis pallidipennis sp. nov., Pl. I, fig. 6.

Male.—Head yellow, but the ocellar tubercle and upper part of the occiput black. Front about one-third the width of head; orbits nearly parallel, narrowly silvery. Face whitish. Palpi and proboscis whitish. Hairs of occiput and cheeks white. Antennæ four-fifths as long as the face, whitish; second joint more yellow; arista brown, yellow at base.

Thorax black, golden pollinose towards the posterior dorsal margin, covered with short white hairs; humeri and at base of wing yellowish; pleura and notum whitish-pollinose; two posterior dorso-central bristles. Scutellum black, with four marginal bristles, the two apical one-half as long as the lateral ones. Halteres yellowish.

Abdomen short, broad, grayish-black; a faint brown stripe each side of a median gray line; the white hairs longer than those of the thorax.

Legs yellow; fore femora more or less faintly infuscated. Wings nearly hyaline; first vein bristly; third vein bare, faintly spotted along the costa and in cells behind the fourth vein; the darkest portion is along the costa in form of triangular spots; the submarginal cell clearly hyaline, except at the apex; the first posterior cell very faintly spotted along the fourth vein. Length 2.5 mm.

Two males, Mainton, Colorado, 6029 feet altitude (E. S. Tucker).
Cotypes in the collection of Acad. Nat. Sci Phila. and Kans. Univ.

This species is remarkable for its nearly hyaline wings; the spots, except along the costa, are hardly distinguishable and then only when observed in certain angles with the light.

Tephritis despecta v. d. W., Pl. I, fig. 7.

One male, Highrolls, N. Mex.

The wing as figured in the Biologia, but less distinct towards the base, and the spots in general are larger. It agrees well with the description.

Euaresta bella Lw.

One female, Guadalajara, Mexico.

No bristles distinguishable on the third vein.

Euaresta timida Lw.

One female, Guadalajara, Mexico.

The abdomen entirely rufous, except a black spot near each lateral posterior margin of the fourth segment. The ovipositor with first joint as long as the last three segments. The third vein distinctly bristly.

Euaresta webbii Doan.

One male, Beulah, N. Mex.

Fore femora above, middle femora below and hind femora entirely black; otherwise the legs rufous.

Euaresta pura Lw., Pl. I, fig. 8.

Two females, Beulah, N. Mex.

Both of these specimens are wanting a head; otherwise they agree with Loew's description, excepting the wing picture, which in these the first basal cell sometimes has one small drop, and the first posterior cell has only one in its basal, besides the three in its apical portion.

Euaresta tapetis Coq., Pl. I, fig. 9.

Three females, East Las Vegas, N. Mex.

Euaresta araneosa Coq.

One male, Beulah, N. Mex.

Beyond a doubt *Urellia pacifica* Doan (Jour. N. Y. Soc., vii, 192,

1899, pl. 4, fig. 10), is a synonym of this species. The typical description and wing design agrees with this specimen, which I compared with the typical *E. araneosa* at the National Museum. The basal spot of the first posterior cell in the typical specimens is sometimes expanded the full width of the cell and nearly to the small cross-vein, making the stigmatic band narrower.

The typical description of *E. araneosa* is not explicit enough as to the wing design, and the reference to figure 21, plate 10, of Loew's Monograph is to me entirely misleading. Figure 4, plate 11, is nearer to it, excepting for the apical rays. This demonstrates the danger of describing a Trypetid wing without figuring it.

***Euaresta abstersa* Lw.**

Numerous specimens of both sexes, Alamogordo, N. Mex.; Cloudcroft, N. Mex.; El Paso, Tex.; Ysleta, Tex.

***Urellia mevarna* Walk., Pl. I, figs. 10 and 11.**

Numerous specimens of both sexes, Highrolls, Alamogordo, Las Vegas, and Cloudcroft, N. Mex.; El Paso, Tex. One male, Guadalajara, Mex.

The first ray, from the stigma to the large spot, is sometimes hardly distinguishable; only one ray to the discal cell; the small cross-vein faintly or not at all infuscated, sometimes a small spot on the fifth vein. Dr. Coquillett kindly determined these for me.

***Urellia radifera* Coq., Pl. I, fig. 12.**

Three males, Cloudcroft and Alamogordo, N. Mex.

Dr. Coquillett kindly determined these for me.

***Urellia stigmatica* Coq., Pl. I, fig. 13.**

Numerous specimens of both sexes, Alamogordo, N. Mex.

Dr. Coquillett kindly determined these for me.

***Urellia eugenia* v. d. W.**

One male, Guadalajara, Mex.

***Urellia vicina* v. d. W.**

Three males and ten females, Alamogordo and Highrolls, N. Mex.

The first ray stout; one ray to the discal cell; the small cross-vein infuscated.

MYDAIDÆ.

Etyphus townsendi Will.

Numerous specimens of both sexes from Alamogordo, N. Mex. (Viereck and Rehn).

From this lot of well-preserved specimens I make the following notes, which will also serve to distinguish the sexes.

The pile of the male is much thicker than that of the female, and in some places longer; that of the thoracic dorsum more appressed and formed into four longitudinal stripes by a narrow bare black median vitta, which extends from the anterior margin to quite some distance from the scutellum, and also by two lateral ones, extending from the humeri to the scutellum. The lateral pollinose spots behind the humeri are sometimes indistinct, but in every case is more distinct in the female than in the male; the dorsum of the female is also marked with two other fainter median pollinose stripes. The pleuræ of both sexes have, in addition to those of the sterno- and mesopleuræ, similar silvery spots on the hypopleuræ and on the rufous anterior lateral angles of the first abdominal segment. The abdomen of the male opaque, at least not polished as in the female, except the yellow posterior margins, and these bands are narrower and that of the first segment more whitish than those of the female; the last segment shorter than the preceding. The legs of both sexes sometimes brownish, especially the femora; the hind tibiæ of the male with a distinct apical spine, at the base of which are one or two stout bristles; of the female, in place of the spine is a tubercle, on which are three or four stout bristles. The wing veins of both sexes are sometimes brownish, especially towards the anterior margin. Otherwise they agree with the typical description in Trans. Kans. Acad. of Sci., xv, 58.

Mydas abdominalis Adams.

A male and female, Florence, Arizona (Beiderman).

Mydas cletpis O. S.

One female, Carr Canyon, Arizona (Skinner).

Mydas luteipennis Lw.

One male and female, Alamogordo, N. Mex (Viereck and Rehn).

I make mention here of a male from Round Mt., Texas, closely allied to *Mydas dives*, but the abdomen is opaque-black, with only a

tinge of metallic-blue; no golden pile on the second segment; the aluke, the lateral angles and the root of the wing blackish-brown, and the posterior margin brownish-hyaline.

EXPLANATION OF PLATE I.

- Fig. 1. *Stranzia longipennis*, variety, wing.
" 2. *Tephritis dupla*, wing.
" 3. " *umbrata*, wing.
" 4. " *corpulenta*, wing.
" 5. " *inornata*, wing.
" 6. " *pallidipennis*, wing.
" 7. " *despecta*, wing.
" 8. *Euaresta pura*, wing.
" 9. " *tapetis*, wing.
" 10. *Urelia mevarna*, wing.
" 11. " " variety, wing.
" 12. " *radifera*, wing.
" 13. " *stigmatica*, wing.